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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,421	10/01/2003	Gee-Sung Chae	8734.241.00 US	5657

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EXAMINER

CHOW, DOON Y

ART UNIT	PAPER NUMBER
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2629

DATE MAILED: 03/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/674,421

Applicant(s)

CHAE ET AL.

Examiner

Dennis-Doon Chow

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-7, 10-13 and 15-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Sakamoto et al. (US 6069678):

Regarding to claim 1, Sakamoto discloses an in-plane switching mode liquid crystal display device, comprising: a plurality of gate lines (101, Fig. 6) and data lines (201, Fig. 6) defining a plurality of pixels; a driving device in each of the pixels; a pixel electrode in each of the pixels; and a common electrode (301, Fig. 6) completely overlapping a data line in width (Fig. 6).

Regarding to claim 2, Sakamoto discloses the driving device is a thin film transistor (501, Fig. 6).

Regarding to claim 3, Sakamoto discloses the thin film transistor comprises: a gate electrode (1405, Fig. 25) on a substrate; an insulating layer (2405, Fig. 25) over the gate electrode; a semiconductor layer (1105, 2505, Fig. 25) on the insulating layer; a source electrode (1005, Fig. 25) and a drain electrode (905, Fig. 25) on the

semiconductor layer; and a passivation layer (2605, Fig. 25) over the source electrode, drain electrode and semiconductor layer.

Regarding to claim 4, Sakamoto discloses the data lines (201, Fig. 6) are formed on the insulating layer.

Regarding to claim 5, Sakamoto discloses the common electrode (305, Fig. 27) is formed on the passivation layer (2605, Fig. 27).

Regarding to claim 6, Sakamoto discloses the pixel electrode (403, Fig. 16) is formed on the insulating layer (803, Fig. 16).

Regarding to claim 7, Sakamoto discloses the pixel electrode is formed on the passivation layer.

Regarding to claims 10 and 11, see the disclosures of claim 1. Sakamoto further discloses a second common electrode in each pixel (the center portion of common electrode, Figs, 6, 10, 14), wherein the width of the first common electrode is larger than that of the second common electrode.

Regarding to claim 12, Sakamoto discloses an in-plane switching mode liquid crystal display device, comprising: a plurality of gate lines and data lines defining a plurality of pixels; a first pixel electrode in a first pixel; a first driving device in the first

pixel; a second pixel electrode in a second pixel; a second driving device in the second pixel; a passivation layer; and a first common electrode formed between the first and second pixel electrodes, and on the passivation layer (see the above disclosures). The passivation layer inherently insulates the first and second driving devices.

Regarding to claim13, see the above disclosures of claim 1.

Regarding to claims 15-16, The device of claim 12, a second common electrode (the center portion of the common electrode) in the first pixel for forming a horizontal electric field with the first pixel electrode; and a third common electrode (the center portion of the common electrode) in the second pixel for forming a horizontal electric field with the second pixel electrode, wherein a width of the first common electrode is larger than that of one of the second common electrode and the third common electrode.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 8-9 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakamoto et al. in view of Nishida et al. (US 2005/0174521).

Sakamoto does not disclose the passivation layer is formed of an organic material.

Nishida, in the same display field, disclose an insulation layer is formed of one of BCB and photoacryl [0112].

In light of Nishida, it would have been obvious to one of ordinary skill in the art to use one of BCB and photoacryl as the passivation insulation layer in Sakamoto's display device since Sakamoto does not disclose any specific material for the passivation insulation layer.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Nishida et al. (US 2005/0174521).

Nishida discloses an in-plane switching mode liquid crystal display device, comprising: a plurality of gate lines (28, Figs. 6 and 19B) and data lines (24, Figs. 6 and 19B) defining a plurality of pixels; a driving device in each of the pixels; a pixel electrode

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(27, Figs. 6 and 19B) in each of the pixels; a first common electrode (26, Figs. 6 and 19B) completely overlapping a data line in width (Figs. 10 and 19B), and a second common electrode in each pixel (the center teeth of the common electrode, Fig. 19B).

Conclusion

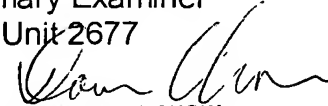
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis-Doon Chow whose telephone number is 571-272-7767. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on 571-272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

D. Chow
March 17, 2006

Dennis-Doon Chow
Primary Examiner
Art Unit 2677


DENNIS-DOON CHOW
PRIMARY EXAMINER